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AUTHOR Symcox, Linda
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ABSTRACT

This unit presents lessons on the New Stone Age or Neolithic period from 8,000 to 3,500 B.C. The unit attempts to develop the profound changes in human society brought about by the domestication of plants and animals. The development of agriculture and the resultant move from wandering hunter gatherers to settled villages has been called the great leap forward in the history of humankind. Lesson 1 places the Neolithic period in its geological time frame and explains the discoveries made by archaeologists, which are the only source of information for this period. Lesson 2 describes the shift from hunting and gathering to herding and farming. Lesson 3 discusses the archaeological sites of Beidha and Catal Huyuk as examples of permanent villages and houses. Lesson 4 covers developments in both decorative and religious arts. It is essential that students of world history understand that the Neolithic Revolution was the necessary foundation for the great civilizations that followed. It was the most important single innovation in the evolution of human society before the Industrial Revolution. Through agriculture humans now controlled and regulated their food supply rather than depending on the caprice of nature. What domestication did was create an assured food supply and large settled communities and ultimately cities. Archaeologists and anthropologists have shown that early farming involved much more labor and much more risk than did hunting and gathering. Therefore, a crisis must have forced the change. Many theories exist as to the nature of this crisis. The unit does not emphasize the question of why agriculture developed. Contains 13 references. (Author/DK)

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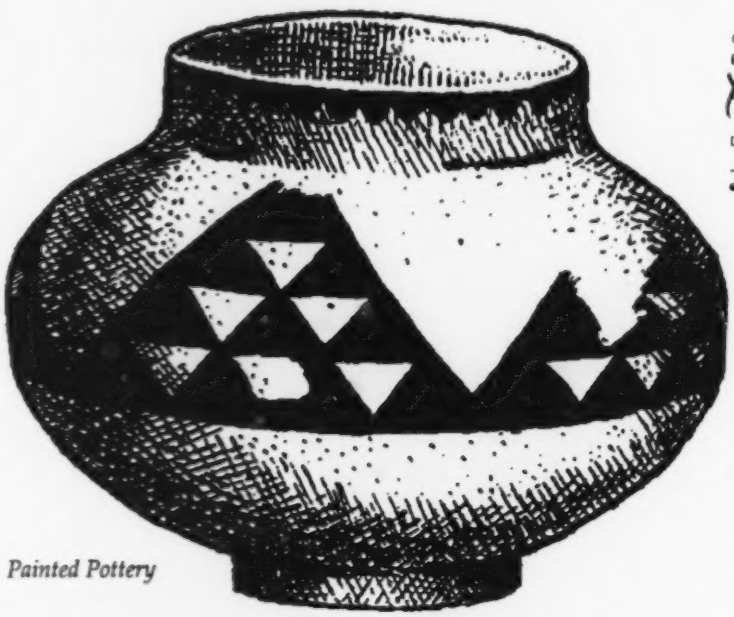
ED 376 097

THE NEOLITHIC REVOLUTION: THE FIRST FARMERS AND SHEPHERDS

A UNIT OF STUDY FOR GRADES 6-8

By Linda Symcox
University of California, Los Angeles



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A Cooperative Research Program of the
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and the National Endowment for the Humanities

Linda Symcox, Project Developer & Series Editor
Amanda H. Podany, Historical Consultant
Charlotte Crabtree, Director

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For information on additional teaching units and other resources from the Center, please write:

National Center for History in the Schools
University of California, Los Angeles
Moore Hall 231, 405 Hilgard Avenue
Los Angeles, CA 90024-1521

APPROACH AND RATIONALE

By Linda Symcox

The National Center for History in the Schools has developed the following collection of lessons for teaching **The Neolithic Revolution**. Our units are the fruit of a year-long collaboration between history professors and experienced teachers of both United States and World History. They represent specific "**dramatic moments**" in history from which you and your students can pause to delve into the deeper meanings of selected landmark events and explore their wider context in the great historical narrative.

In our approach, the continuing narrative provides the context in which the dramatic moment is situated. By studying a crucial turning-point in history, the student becomes aware that choices had to be made by real human beings, that those decisions were the result of specific factors, and that they set in motion a series of historical consequences. We have selected dramatic moments that best bring alive that decision-making process. We hope that through this approach, your students will realize that history is an ongoing, open-ended process, and that the decisions they make today create the conditions of tomorrow's history.

Our dramatic moments are based on **primary sources**, taken from documents, artifacts, journals, diaries, newspapers and literature from the period under study. As you know, a primary source is a **first-hand** account of any event in history. For example, the telecast or the script of a speech would be a primary source. A secondary source is a **second-hand** account of an event. This would be, for example, the newspaper account of the speech the next day or a newscaster's report about the speech. All historical accounts, such as textbooks, are by their very

nature secondary sources. What we hope to achieve using primary source documents in these lessons is to remove the distance that students feel from historical events and to connect them more intimately with the past. In this way we hope to re-create for your students a sense of "being there," a sense of seeing history through the eyes of the very people who were making decisions. This will help your students develop historical empathy, to realize that history is not an impersonal process divorced from real people like themselves. At the same time, by analyzing primary sources, students will actually practice the historian's craft, discovering for themselves how to analyze evidence, establish a valid interpretation and construct a coherent narrative in which all the relevant factors play a part.

CONTENT AND ORGANIZATION

Within this unit, you will find: 1) **Teacher Background Materials** and 2) **Lesson Plans** with **Student Resources**. This unit, as we have said above, focuses on certain key moments in time and should be used as a supplement to your customary course materials. We have chosen to pitch the various lessons on different grade levels and they can usually be adapted to a slightly higher or lower level.

The **Teacher Background** section should provide you with a good overview of the entire unit and with the historical information and context necessary to link the specific **Dramatic Moment** to the larger historical narrative. You may consult it for your own use, and you may choose to share it with students if they are of a sufficient grade level to understand the materials.

The **Lesson Plans** include a variety of ideas and approaches for the teacher which can be elaborated upon or

cut as you see the need. These lesson plans contain student resources which accompany each lesson. These resources consist of primary source documents, any handouts or student background materials, and in many cases, a bibliography for the unit.

In our series of teaching units, each collection can be taught in several ways. You can teach all of the lessons offered on any given topic, or you can select and adapt the ones that best support your particular course needs. We have not attempted to be comprehensive or prescriptive in our offerings, but rather to give you an array of enticing possibilities for in-depth study, at varying grade levels. We hope that you will find the lesson plans exciting and stimulating for your classes. We also hope that your students will never again see history as a boring sweep of inevitable facts and meaningless dates but rather as an endless treasure of real life stories, and an exercise in analysis and reconstruction, rather than rote memorization.

UNKNOWN HEROES

"For 95% of the time humankind has been on this earth our ancestors are anonymous. During the millions of years of prehistory, there was no Achilles, no Caesar, no Michelango, no Shakespeare, no Washington. But the 'geniuses' were countless, even if they are unknown: The user and creator of fire, the craftsman of a new flintstone tool, the painter of the Lascaux caves in France, the man or woman who put the first seed into the earth in order to reap onehundredfold."

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I. UNIT OVERVIEW AND RATIONALE

Some time between 10,000 and 8,000 B.C. small, homeless tribes of hunter/gatherers roamed the earth exactly as they had done for 500,000 years before. But things began to change about this time and thus we call the period from 8,000 to 3,500 B.C. the New Stone Age, or the Neolithic period. This fascinating period is characterized by the development of agriculture (the domestication of plants and animals), and the resultant move into villages and hamlets. It has been called the great leap forward in the history of humankind.

This unit will attempt to develop the profound changes brought about by the domestication of plants and animals. Lesson One will place the Neolithic period in its geological time-frame and will explain the discoveries made by archaeologists, which are our only source of information for this period. Lesson Two will describe the shift from hunting and gathering to herding and farming. Lesson Three will discuss the archaeological sites of Beidha and Çatal Hüyük as examples of permanent villages and houses. Lesson Four will cover developments in both decorative and religious arts. It is essential that students of world history understand that the Neolithic Revolution was the necessary foundation for the great civilizations that followed. It was the most important single innovation in the evolution of human society before the Industrial Revolution. Through agriculture humans now controlled and regulated their food supply rather than depending on the caprice of nature. Without this essential shift to plant cultivation and stock-raising we would still be living in the Old Stone Age. What domestication did was create an assured food supply and large settled communities and ultimately cities. Now it was no longer necessary for every member of the community to gather or produce food and it was

possible for humans to specialize in other areas of work such as building houses or craft production. Housing became permanent, villages sprang up, the arts in the form of pottery, basketry and weaving developed. Eventually, as the population exploded and more and more people were freed from the search and production of food, it was possible for society to support scribes, priests, warriors, architects and even poets.

II. UNIT CONTEXT

This Neolithic unit should follow a larger study on the origins of humankind. It fits chronologically between the Old Stone Age and The Bronze Age. It precedes and lays the essential foundation for a study of the rise of civilization in the Ancient Near East. Thematically the unit should be seen as a profound leap forward for humanity, leading people away from their homeless and dependent status as a hunters/gatherers and launching their sedentary career as technological innovators and creators.

Any discussion of the Neolithic period in the Near East must be seen as a regional manifestation of a phenomenon occuring at a similar time elsewhere in the world. Similar factors in Eastern Asia led to the domestication of millet, rice and yams, and in Central and South America, led to the domestication of beans, squash, gourds, potatoes and corn. It is important to realize that the genius of humankind at adaptation was not unique to the Ancient Near East. In these other areas the same consequences followed: division of labor, specialization, technological and artistic advances, city development, and large-scale political organization.

III. UNIT OBJECTIVES

1. The student will be able to define and describe the Neolithic period in World History.

2. The student will discover how and why we are dependent upon archaeological evidence for information about prehistoric humans.

3. The student will learn how to work with and interpret renderings of archaeological evidence as historical sources.

4. The student will be able to explain how relatively "recent" the Neolithic Revolution is in geological time.

5. The student will distinguish between man as hunter and gatherer and man as domesticator of plants and animals. (Food producer.)

6. The student will become aware of the profound changes in society brought about by the domestication of plants and animals and the development of agriculture.

7. The student will be able to identify and describe some of these changes as they affected art, religion, domestic architecture, and the growth of villages.

8. The student will identify the Neolithic period as a major turning point in the history of humankind.

IV. INTRODUCTION TO "THE NEOLITHIC REVOLUTION: THE FIRST FARMERS AND SHEPHERDS"

By Amanda H. Podany

The units of time into which historians divide up the past are always, to some extent, arbitrary. We talk about the "Middle Ages," the "Classical Era," or the "Early Modern" period, none of which would have been identifiable as such by people living through them. The terms provide a convenient system within which to organize our understanding of the past. In the same manner, archaeologists and ancient historians have divided the prehistory and early history of humankind into ages: the Stone Age, Bronze Age, and Iron Age. When the terms were originally defined, historians equated the beginning of each with the introduction of a new type of technology in the manufacture of tools and weapons. With advances in the sophistication of archaeological techniques, scholars have since realized that the definitions of the "ages" are too simplistic. The system continues to be used, but with the recognition, for example, that most of the earliest "bronzes" were not bronze at all but copper or other copper alloys, and that the introduction of iron did not immediately cause sweeping changes in society, because manufacturing processes were initially faulty and early iron was weak and no match for bronze. The Stone Age, meanwhile, has been subdivided into two major parts, the Paleolithic ("Old Stone Age") and Neolithic ("New Stone Age"), in recognition of the great changes that took place in the last few millennia of the period. The Neolithic is the name given to the time when humankind first settled in small communities, built structures in which to live, herded and domesticated animals, and farmed the land. It is with this period that the first unit is concerned.

The reasons for the dramatic change in the ancient economy are intriguing but elusive. Why did our ancestors, who for thousands of years had survived on food that they could hunt or forage, choose to take the risky step of settling in one place and trusting their survival to the vagaries of the weather and its effects on their crops? Archaeologists and anthropologists have shown that early farming involved much more labor and much more risk than did hunting and gathering; a crisis must therefore have forced men and women to give up their traditional way of life and resort to agriculture. Archaeologists have put forward many suggestions as to the nature of this crisis (such as climatic change or population pressure) and the sequence of events that followed: whether settled communities preceded farming or vice versa, whether herding preceded or succeeded the growing of crops, and whether the earliest farming took place in the "nuclear zone"—the area blessed with plenty of rainfall, fertile soil, and abundant wild life—or outside it. None of the theories has yet found general acceptance, and in the following unit we have not emphasized the question of why agriculture developed. The nature of the crisis and the sequence of events giving rise to village life are less important than the fact of village life in the Neolithic and its repercussions for the rest of humankind's history.

V. LESSON PLANS

1. **Geological Time And Archaeology**

2. **The Domestication Of Plants And Animals**

3. **Houses And Villages**

4. **Art: Decorative And Religious**

GEOLOGICAL TIME AND ARCHAEOLOGY

A. Objectives

1. The student will place the Neolithic Revolution in a geological time-frame.

2. The student will be able to define the concept of the Old Stone Age.

3. The student will be able to describe hunting and gathering as a lifestyle.

4. The student will be able to describe archaeology's role in unlocking prehistoric humans.

5. The student will master the vocabulary words which are necessary for comprehension of this period.

B. Lesson Activities (Two Days)

1. Read the **DRAMATIC MOMENT** to students, the passage about the unknown heroes of prehistoric times on page seven. Discuss the meaning.

2. Walk around the perimeter of the classroom and draw an imaginary timeline which begins around 500,000 years ago with early humankind. Show students that the long period of hunting and gathering in prehistory would take up almost the entire timeline. Put a marker up on the "timeline" indicating where the period 8,000 B.C. would appear. (It would appear about two feet from the corner of the room where the timeline began.) Show students where Columbus would appear. (A couple of inches from the end of the timeline.)

3. Now read students the following passage describing the immensity of prehistoric time as compared with historic time. (See Teacher Resource One.)

4. Distribute the **BACKGROUND MATERIALS** for this lesson, describing the Stone Age and archaeology. Have the students read and discuss the material.

6. Have students begin a notebook or journal for the unit. Include the following:

   a. An archaeological timeline

   b. Vocabulary definitions

   c. A chart contrasting the lifestyle of a hunter/gatherer with their own. For example: Feast or famine, shelter, clothes, privacy, entertainment, etc. (This can be homework.)

C. Extended Activities

1. Draw a timeline representing the student's life. (11-14 years.) Now on the opposite side of the timeline, draw the geological timeline.

2. Illustrate the archaeological renderings of prehistoric lifestyle. Begin planning a mural with the Old Stone Age at the beginning. Students can depict caves, cave paintings, hunting and gathering, camp fires, etc.

D. Sample Questions For Discussion Of Background Materials

1. Describe the homes and lifestyle of hunter/gatherers.

2. What were men's roles? What were women's roles?

3. What advantages did humans have over animals?

4. What tools did men and women make?

5. Why is the period from 500,000 B.C. to 10,000 B.C. referred to as the Old Stone Age?

6. Why didn't settled communities develop during the Old Stone Age?

7. What religious beliefs did they have?

8. Describe the role of archaeology in learning about prehistory.

9. Look at the three pictures of cave paintings. What do they tell us?

E. Vocabulary

archaeology
hunter/gatherer
Stone Age
B.C.
prehistory
nomadic
stratum (strata)
excavation

F. Evaluating The Lesson

1. Informal evaluation of discussion.

2. Evaluation of journal/notebooks.

Teacher Resource One

"Think about the 5,000,000 years that man has been roaming the earth! They represent, according to our current knowledge, the immensity of human evolution. If one were to place into the convenient framework of one whole year the five billion years that represent all the stages on earth, including the formation of the earth, our ancestors of five million years ago would not appear until the thirty-first of December, that is, the last day of our landmark year, and then only at 10:00 A.M. Man would discover fire at about 10:00 P.M. that day, and it would not be until 11:54 P.M. that he would learn to hunt bears! During the last minute of the year, he would develop a marvelous skill in animal painting. At the same moment he would become a shepherd and a farmer."

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GEOLOGICAL TIME AND ARCHAEOLOGY

For over 90% of the time humans have been on earth they have survived by **hunting and fishing**, with women **gathering** wild fruits, nuts and insects. Humans did not learn even the simplest farming techniques until about 10,000 years ago.

How did humanity survive for 500,000 years when animals were faster, stronger and had better teeth than humans? Their advantage was their greater intelligence. Humans could work together and talk to one another. Early hunters could tell friends where they had found a good place for hunting and they could even plan ahead to combine their efforts for a big kill. Men could teach their sons their skills, and women could teach their daughters.

Early humans also learned how to make tools of stone. (See **ILLUSTRATION 1A**.) That is why the period from 500,000 to 10,000 B.C. is called the Old Stone Age, because humans had not yet invented tools of bronze or iron.

People living a hunting and gathering life (as they did before 10,000 B.C.) built very simple shelters of twigs or simply lived in the mouths of caves. This is because families were **nomadic**, they would move on to a new home according to the availability of fruits and animals in a given area. They did not live year after year in large settled communities.

These Old Stone Age tribes carefully buried their dead, along with tools and ornaments. This suggests to us that people believed in some sort of afterlife and were religious.

Old Stone Age cave painters were probably the first great artists in history. (See **ILLUSTRATION 1B**.) As you can see, most of these beautiful paintings are of animal hunts. The people who did them apparently believed these paintings had magical powers and gave the hunter a better chance of success in a real hunt.

Beyond this information, we do not know the life-story of a single Old Stone Age person. You see, people could not yet write to leave us detailed records. And what we do know, comes from **archaeology**. **Archaeology** is the study of the past through digging up places where people used to live and examining the objects

they made.

Until 50 years ago, archaeologists depended on finding objects made of lasting materials, (eg. stone buildings, broken pieces of pottery or fossils.) Since then, they have discovered how to identify the shape left behind in the soil of wooden or clay buildings, even though these have long since disappeared.

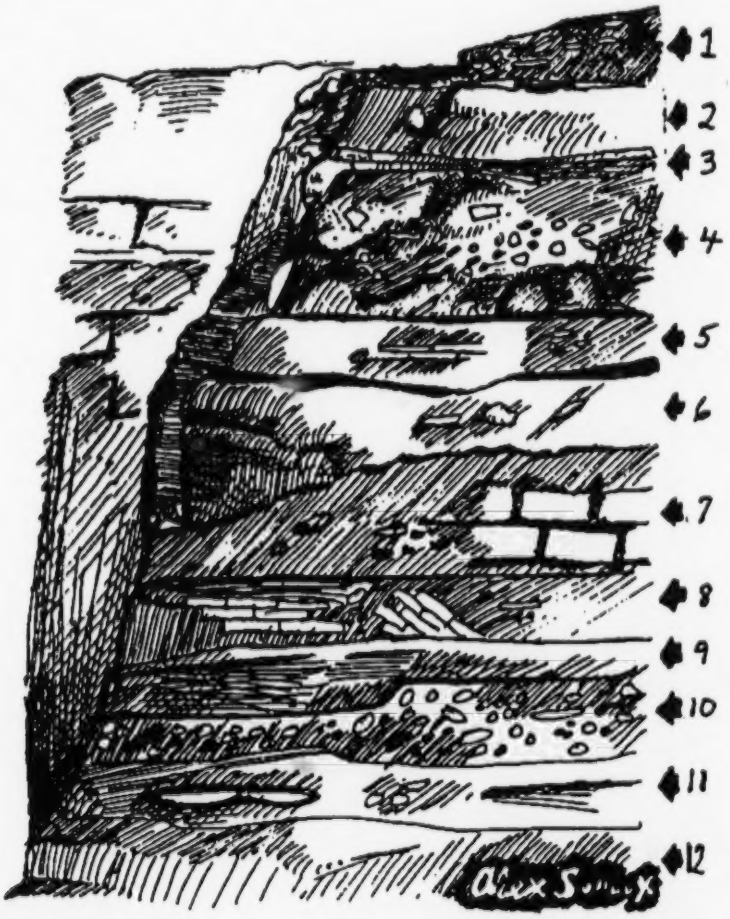
Soil layers stack up and bury old civilizations. Each layer, or stratum, represents a historical period. For example, the City of London has 14 feet of previous habitation, and Jericho's 26 layers can be traced for 10,000 years of settlement.

Scientific methods have been developed for dating the objects found in these layers. Carbon-14, a technique which measures the radioactivity found in organic materials, lets us know how long ago the plant or creature was alive. By measuring the disappearance of radioactivity, we can make this estimation. We can also analyze paintings and pottery for clues into a culture. We can analyze the bones of early humanity's ancestors, the bones of their pets, and the animals who lived near them. Even the seeds they left behind can reveal a lot about prehistoric humans.

All of these archaeological discoveries have vastly increased our knowledge of **prehistory**, (history before writing was invented), but we are always forced to make intelligent and reasoned guesses about prehistory because we lack written records.

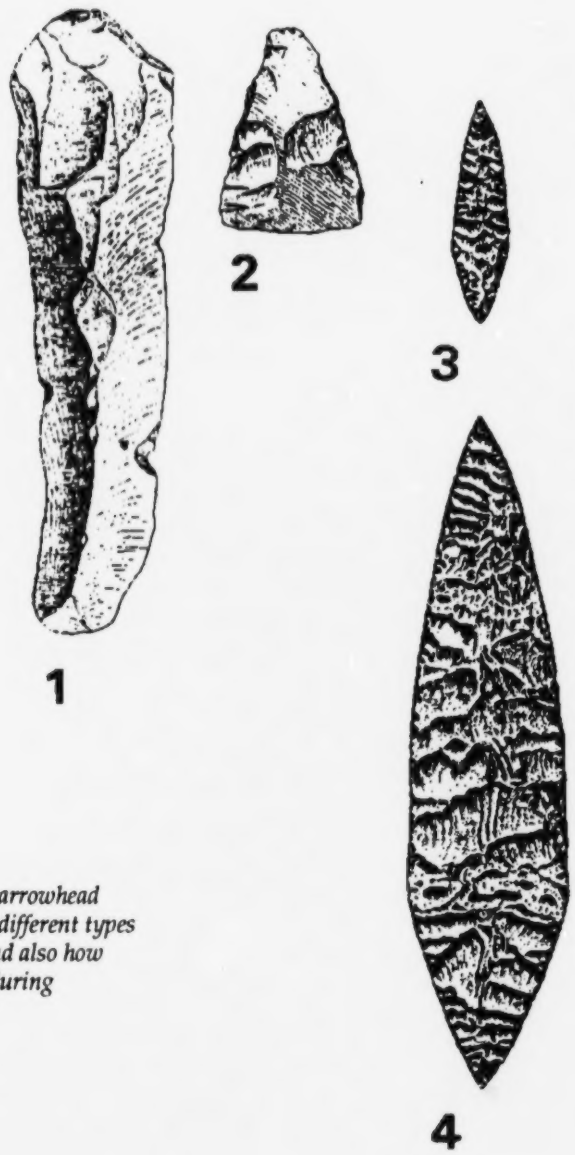
UNCOVERING EACH STRATA OF PREHISTORY

The picture below represents 12 layers of an archaeological site. The archaeologist must determine where each layer of structures, representing a period of history, begins and ends, and then mark off these levels. This is a very difficult task in Mesopotamia since the basic building material , mud brick, is so similar to the earth in which it is buried. After a level is defined, excavators try to determine its age by studying the evidence in it. A piece of pottery or a special tool known to be from a given period can be very helpful in identifying the time period of a given layer. Once one object has been dated, archaeologists can assume that most other objects at the at the same level were made at the same time.



Illustrated by Alex Symcox

ILLUSTRATION 1A



1. Knife blade, 2. chisel blade, 3. arrowhead 4. javelin head. They show how different types of tools could be made of flint, and also how styles of craftmanship changed during the stone ages.

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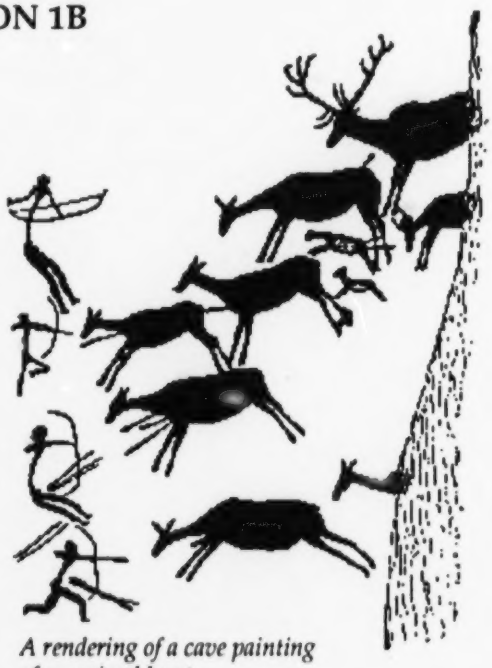
ILLUSTRATION 1B

A picture of a man dressed up as an animal.



A rendering of a cave painting of an animal hunt.

In this late prehistoric cave drawing from Spain a man (or woman) is on a rope ladder, gathering honeycomb from a hole in a rock while the bees buzz about. Another figure below, not shown here, holds the ropes. Did they need to be able to talk to each other?

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LESSON TWO

THE DOMESTICATION OF PLANTS AND ANIMALS

A. Objectives

1. The student will be able to define and describe the Neolithic Revolution.

2. The student will be able to analyze archaeological sources, (e.g. cave paintings and sketches of corn) and draw conclusions about the domestication of plants and animals.

3. The student will define and explain the domestication of plants and animals.

4. The student will distinguish between man, the hunter/gatherer and man, the farmer and shepherd.

5. The student will suggest causes for the Neolithic Revolution.

6. The student will be able to identify the "fertile crescent" and the mountains and valleys surrounding that area.

B. Lesson Activities (One Day)

1. Distribute **STUDENT BACKGROUND** describing the domestication of plants and animals. Don't read yet but look at **ILLUSTRATION 2A**.

2. Have students compare yesterday's cave painting of the hunt with today's cave painting of herding. (Compare **ILLUSTRATION 2B** and **ILLUSTRATION 2A**.) Do not tell them the difference; elicit the observation from the students.

3. Hold a discussion on this shift from hunting to herding. Have students speculate on the advantages of herding rather than hunting. (e.g. Could man rely on hunting as a constant and reliable source of food?)

4. Now have students read the Background Materials. (See **STUDENT RESOURCE TWO.**)

5. Have them look at **ILLUSTRATION 2B**. Ask students to observe the differences between wheat sample (a) and wheat sample (b). Hold a discussion referring to sample questions.

6. Have students form cooperative learning groups of 4 to 5 students. Label half the groups as hunter/gatherers and the other half as farmers. Have each group make up a list of why their way of life is preferable. (5 or 10 minutes.)

7. Make two columns on the blackboard, one for the hunter/gatherers and one for the farmers. Have a speaker from each group report on the group's findings. List these under the appropriate column. Discussion.

8. Have students define the vocabulary words in their notebooks. (This could be homework.)

9. Have students identify the "fertile crescent" on **MAP A** and also have them identify the mountains and valleys in this region.

C. Extended Activities

1. Plan the next stage of the mural. (Huts, plants, cave paintings, herding, fields.)

2. Render sketches of the cave art in notebook.

3. Do some research to discover what criteria archaeologists and anthropologists use to classify a culture as belonging to the Stone Age. Learn the names, dates and locations of other recognized Stone Age cultures.

D. Sample Questions For Discussion of Background Materials

1. What can you infer by comparing the cave paintings of the last lesson with the cave painting of this lesson?

2. What can you infer by comparing the two stalks of wheat?

3. What are the advantages of plant and animal domestication over hunting and gathering?

4. Why do you think farming and herding led humans into settled communities?

5. Why do you think the population would greatly increase at this particular point in the history of humankind?

E. Vocabulary

Old Stone Age
New Stone Age
Neolithic Revolution
herding
farming
domestication
draft animal
cultivation
population explosion
plow
hypothesis

F. Evaluating The Lesson

1. Informal evaluation of discussions analyzing cave paintings.

2. Informal evaluation of discussion of farming and herding. Cooperative groups.

3. Evaluation of journal/notebooks.

4. Evaluation of map activities.

THE DOMESTICATION OF PLANTS AND ANIMALS

As you already know, for 500,000 years men and women roamed the earth as hunters and gatherers. But things began to change some time between 10,000 and 8,000 B.C. People began to farm! This change from hunting and gathering to farming and herding is called the **New Stone Age** or the **Neolithic Revolution**. People still used tools made of stones , but the change to **farming** and **herding** would be the great leap forward in the history of humanity. As you will see in this unit, nearly every aspect of human life would change from this point on.

But why, you may ask, did people in some places begin to farm when their ancestors had survived by hunting and gathering for over 500,000 years? There are several **hypotheses** which attempt to answer that question because no one knows for sure. One hypothesis is that changes in **climate** caused the Neolithic Revolution. With the end of the last Ice Age in around 10,000 B.C., drier conditions forced people to seek out areas which were well - watered. In the Ancient Near East these well-watered areas were near to just the right wild plants and wild animals for planting and herding. Not all plants and animals in the wild state are suitable for planting and herding. Thus these ideal conditions: 1) people moving near rivers and oases, 2) along with crops and animals suitable for planting and herding, 3) led people to experiment with growing their own crops and herding animals.

Another hypothesis is that men switched from hunting and gathering to agriculture as a result of a dramatic increase in the population. Now the population far exceeded the food resources available to hunters and gatherers and it was necessary to raise plants and animals to assure a greater food supply.

We do know that one of the first places on earth where farming began was in the Ancient Near East, about 10,000 B.C. The first **cultivated** foods were cereals, (wheat, barley, and beans.) These plants lent themselves to planting and were first cultivated in the lightly wooded, hilly areas. Early hill farmers stored water or diverted streams when rainfall was insufficient. Later as the climate became even drier, men moved down towards the river valleys which had been soaked in the overflow of the rivers and covered with mud and silt. Humans now had to replace their digging sticks which were suited to drier lands but which were

useless when used in these muddy areas.

What were the advantages to cultivating plants? Look at **ILLUSTRATION 2B**. You will observe on the cultivated stock of wheat (a), the ear is larger and it holds more seeds than the wild plant (b), now people could select only the best and biggest seeds for planting, reproducing a much higher quality of food grains than the random plantings of mother nature. People now became **producers** of crops rather than a mere gatherers. They would stop wandering and looking for plants, preferring to till a field, build permanent and more comfortable homes and live in villages. They were no longer nomadic.

Archaeologists speculate about the origins of herding or shepherding. One idea is that once farmers had settled down with their fields nearby, it was logical to put up a pen and to keep their animals nearby as well. Another idea is that hunters had always followed particular herds of wild animals. Perhaps they gradually guided animals to better pastures. In the process, some animals became tame. People would breed the best animals just as they would select the best seeds. Now they could settle down with their corn fields and their tame animals.

The first animals to be **domesticated** (tended by man) in the Near East were the goat and sheep. Cattle, pigs, horses and donkeys came later. The reasons for taking up herding varied. Animals are a source of dairy products. They can be an alternative to human- power: they can pull plows and till the soil. They are a source of transporting goods and people, thus making trade with other areas easier. Animal wastes are a good means of fertilizer. But most of all, domesticated animals provide a reliable and constant source of food. The hunter must always be subject to the uncertainties of the hunt. He will at times feast and at other times starve. But the shepherd will always have ready food.

Now that some people could produce regularly more food than they needed, the population increased dramatically. This allowed others to build houses, make furniture and pottery and become generally civilized. For hundreds and thousands of years people had just fitted into the world as they had found it and had tried their best to live on wild animals and plants. Now people realized in the New Stone Age that they could **change** their surroundings to suit **their** needs.

Because this change in the way people lived was so enormous, this period between 8,000 and 3,500 B.C. is called the **Neolithic Revolution**. But don't forget that these changes were gradual and took hundreds of years to evolve. People at the time would not have even noticed them. But also remember, that without the domestication of plants and animals, we would right now still be living in the Old Stone Age.

ILLUSTRATION 2A

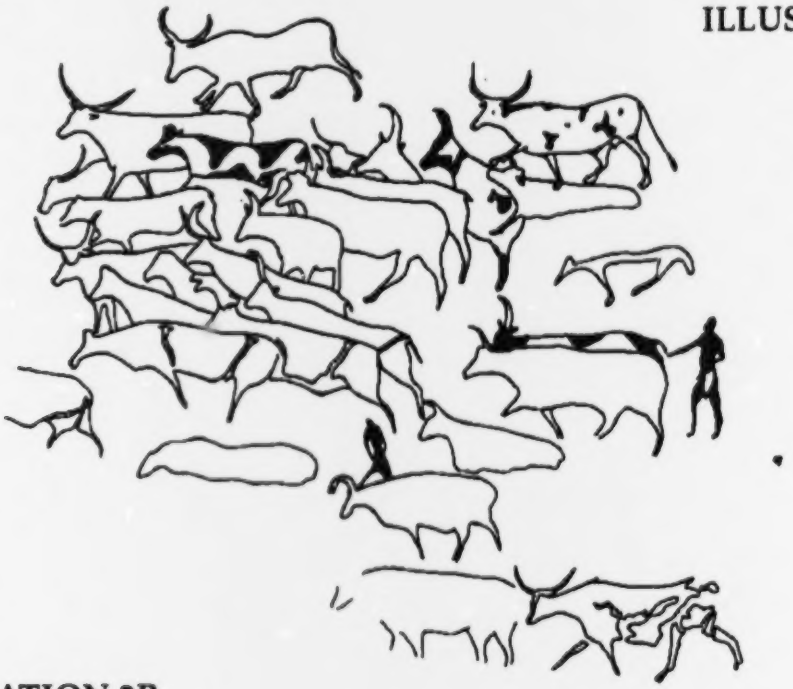

ILLUSTRATION 2B

(a) Wheat cultivated by the early farmers. It had more ears.

(b) Wild wheat, the ancestor of cultivated wheat.

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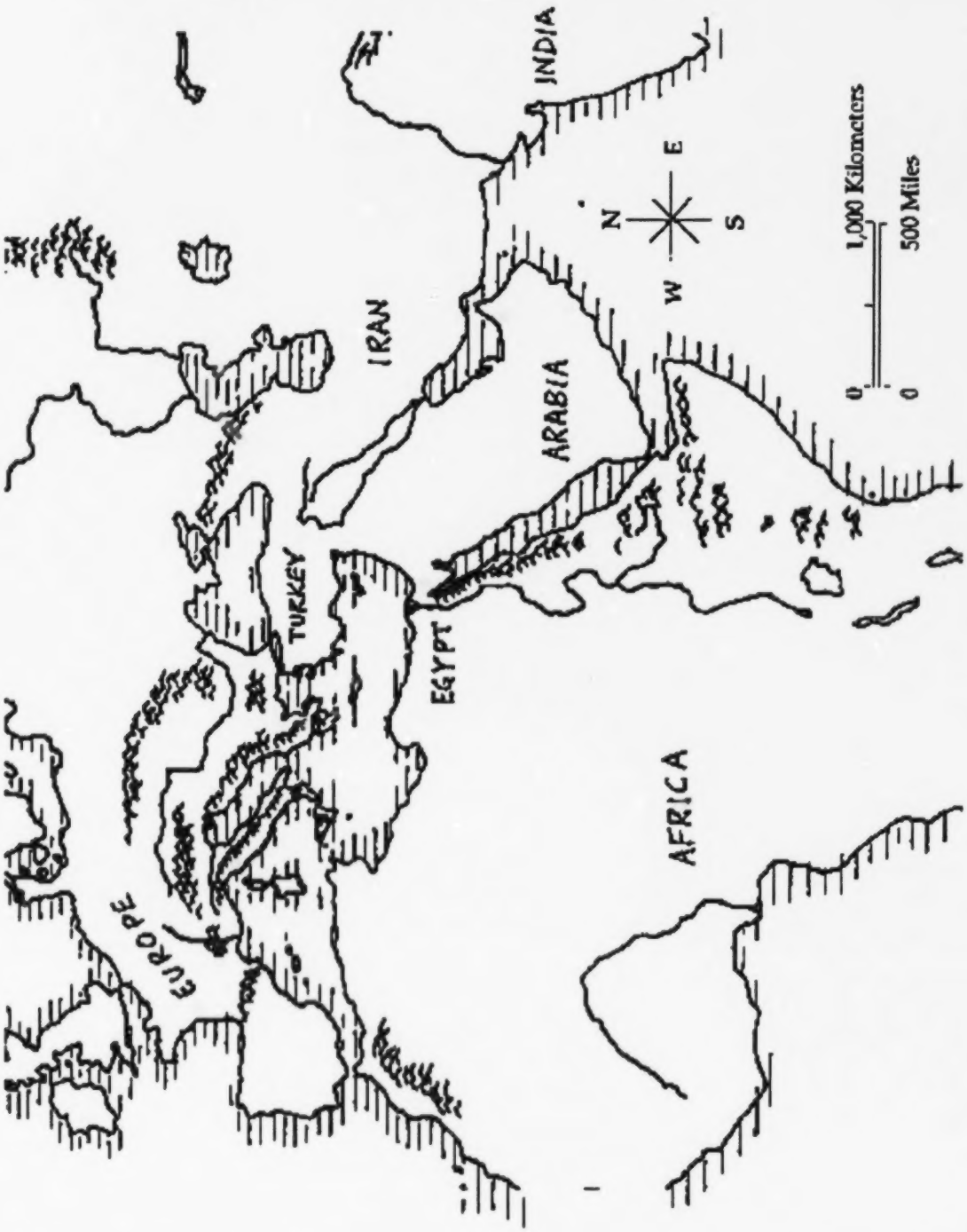
MAP A: THE ANCIENT WORLD



Illustrated by Carole Collier Frick

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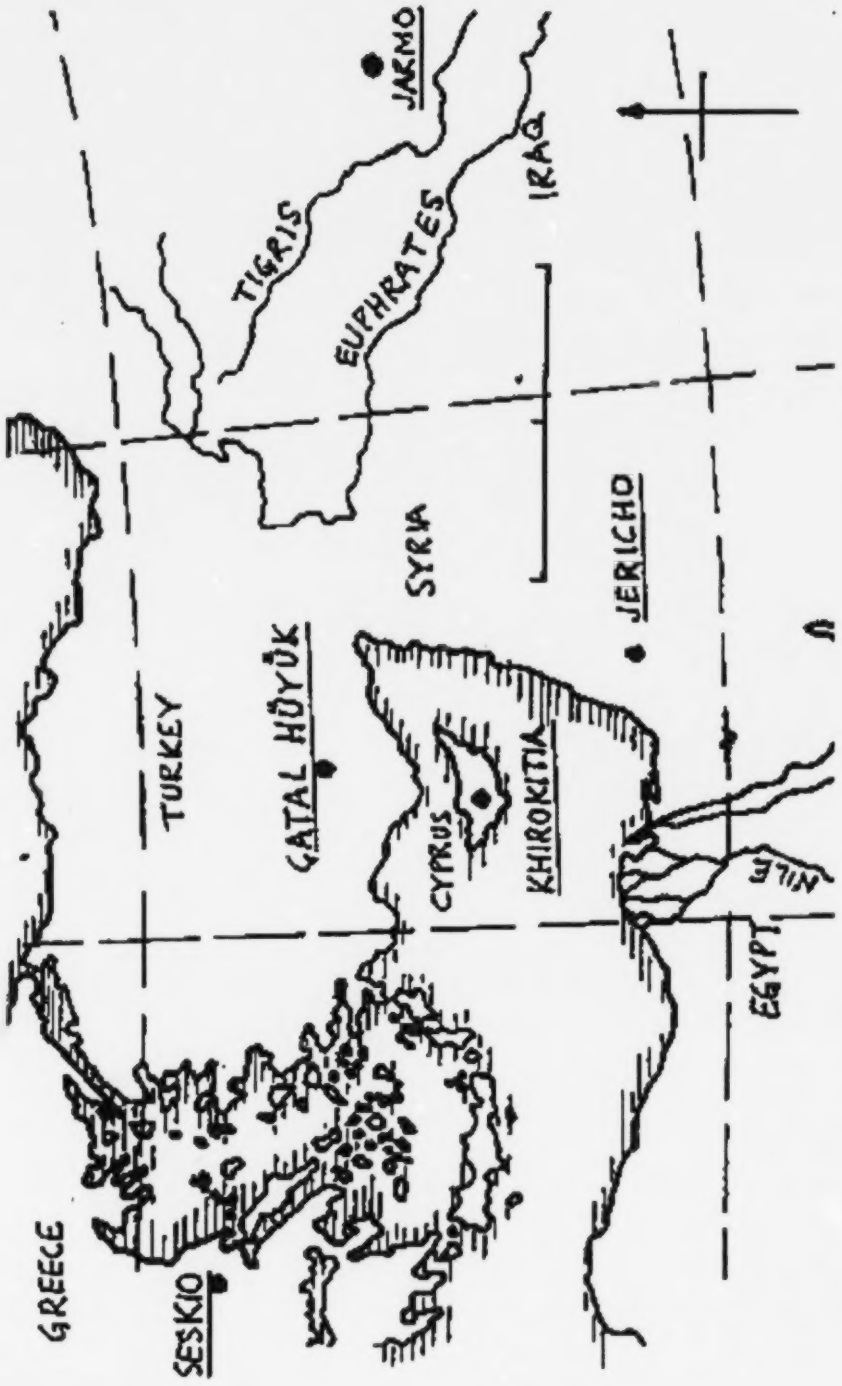
MAP B: ARCHAEOLOGICAL SITES



Illustrated by Carole Collier Frick

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LESSON THREE

HOUSES AND VILLAGES

A. Objectives

1. The student will identify the permanent settlement of large villages as a major consequence of the domestication of plants and animals.

2. The students will observe that the Neolithic people now built permanent houses which were more sophisticated than before.

3. The student will be able to identify changes in the structure, building materials, design and function of homes.

4. The student will speculate on changes in lifestyle brought about by permanent settlement.

5. The student will analyze renderings of archaeological digs in order to form these conclusions.

6. The student will identify Çatal Hüyük and Beidha as important sites in the Near East where extensive Neolithic discoveries have been made.

7. The student will be able to locate the following sites on a map: Çatal Hüyük, Beidha, Jarmo, Jericho and the modern day countries surrounding these sites.

B. Lesson Activities (Two Days)

1. Have students continue their map work (see **MAP A, LESSON TWO**), identifying the sites of Çatal Hüyük, Beidha, Jarmo and Jericho as well as the modern day countries surrounding these areas.

2. Distribute drawings from the excavations at Beidha and Çatal Hüyük. (**ILLUSTRATIONS 3A, 3B, 3C,** and **3D.**) Have students form cooperative learning groups or pair off in twos in order to describe pictures of the houses and villages of the Neolithic period. (15 minutes.)

3. Brainstorm and write descriptions down on the blackboard. (For example, some structures are round, others rectilinear, small connecting rooms, large central rooms, ladders, bricks, flat roofs, connected houses, etc.).

4. Now share with students, **STUDENT RESOURCE THREE** containing student background material as well as descriptions of the sites at Beidha and Çatal Hüyük. There is also a quotation from Diana Kirkbride, the original archaeologist who uncovered Beidha, describing what she saw in one of the houses.

5. Add further information to the list. Hold a discussion on the life - style of people in these early villages and speculate on the level of organization required, etc. (See sample questions for discussion.)

6. Have students enter in their journal/notebooks drawings of round and rectangular houses, along with drawings of the insides of houses with tools, furniture, etc., as revealed by archaeology. (This could be homework.)

7. Have students define vocabulary words in their notebooks.

C. Extended Activities

1. Continue work on mural. Add houses and village scenes.

2. Students can construct a diorama in clay or milk cartons rendering the community of Çatal Hüyük.

3. Draw a cutaway picture of a Neolithic village.

4. Compare a house from Çatal Hüyük or Beidha with the structure you live in. How do they differ? How are they similar?

D. Sample Questions For Background Materials

1. What do you see changing as you uncover the different layers of habitation at Beidha? (Level 6 and level 2.)

2. What are some of the major trends in the development of domestic architecture from the first Neolithic settlements to the later ones?

3. What can you infer about the lifestyle of the villagers from these buildings?

4. What level of social organization do you think was required to build and maintain these villages? What type of group planning would have been necessary?

5. In Çatal Hüyük, do you notice any homes that are grander than any others? What does this imply about social classes and wealth in that society?

6. Speculate about the absence of doors at Çatal Hüyük.

7. What does the presence of obsidian hundreds of kilometers from where it is mined suggest?

8. Is there any clear cut evidence from these sites that people now specialized in various trades? If so, what is your evidence?

9. How had life changed from the Old Stone Age?

E. Vocabulary

village
settlement
domestic
architecture
rectangular
circular
excavation
millennium
habitation
standardization
quern

F. Evaluating The Lesson

1. Evaluate students' map work.

2. Evaluate informally students' group brainstorming.

3. Evaluate oral discussion of Beidha and Çatal Hüyük.

4. Evaluate students' journal/notebooks for sketches, observations and vocabulary entries.

PERMANENT HOUSES AND SETTLEMENTS

One of the major consequences of the human invention of farming and herding was that humans no longer had to follow their food source. With their cultivated fields and their cattle nearby, humanity was able to settle permanently in **villages**. And, as you will study later, similar villages would, in time, become cities and, eventually, great civilizations.

In the Old Stone Age period of hunting and gathering, people lived in the mouth of a cave, built a hut made of twigs, or dug a hole in the ground. These "houses" were temporary, and people would move on depending on the season of the year or the availability of the hunt. With the advent of agriculture, people could build more permanent dwellings, made of mud bricks.

As you will see by analyzing the drawings of houses and villages from the seventh **millennium** B.C., houses became more and more sophisticated, being the precursors of our houses today. You will discover this by looking at two very important archaeological discoveries in the village of Beidha, (Bay-dah), in present-day Jordan, and the settlement of Çatal Hüyük, (Chah-tahl Hooyook), in present-day Turkey.

The first houses excavated from the Neolithic period were **circular** in form. (For example, the houses at Beidha and Jericho.) These homes were very simple and housed, at the most, two people (See **ILLUSTRATION 3A**). The next phase in **domestic architecture**, as seen in the later stages of Beidha and at Çatal Hüyük in Turkey, (See **ILLUSTRATION 3B** and **ILLUSTRATION 3D**), was that of **rectangular** houses, each having large rooms with passageways from one to another. Floors were now paved with plaster and often painted. There were built-in benches and hearths for cooking. One even finds an enclosed pen for animals.

When you look at these pictures along with their descriptions and when you read the quotations by Diana Kirkbride, the archaeologist who uncovered Beidha, try to imagine what life was like in those early villages. You will discover that people now have specialized professions which are completely separate from the procurement of food.

BEIDHA: (A CASE STUDY)

The settlement of Beidha, located in Southern Jordan, is the best known early village in the Levant. It is also one of the largest excavations in the Near East. It was uncovered in the 1960's by Diana Kirkbride, an English archaeologist. Here is some information about what she found at the site:

- The site has 26 levels of **habitation**. The various layers reveal the evolution of domestic architecture.

- Level 6 (See **ILLUSTRATION 3A**) reveals round houses arranged in clusters, like the cells of a honeycomb. They are connected by passageways.

- Level 4, a later level, shows houses which are rectangular. These houses have rounded corners and are single-roomed.

- Level 2, still later, (See **ILLUSTRATION 3B**) reveals a dramatic change from layer 6. Now houses are completely rectangular with a high level of **standardization**. That is to say that all houses are very similar, as in a modern-day housing development. These houses are now multi-roomed and they have hearths, cooking areas, and courtyards which may have been used as animal pens.

The importance of comparing the different levels uncovered at Beidha is that this site exemplifies the evolution of structures from small round huts to larger circular houses, to rectangular houses, to multi-roomed houses with a growing sophistication and specialization in the use of space.

Please notice in **ILLUSTRATION 3B** that corridor buildings stand by the side of the large single room.They were probably workshops. We know this because they had no hearths and many tools were found in these rooms. In fact, a fascinating variety of industrial activity can be reconstructed from the debris found in these buildings. Read the words of Diana Kirkbride, the archaeologist

who first saw and described this site, because it is best to see things through her eyes. You will discover that people were now engaging in professions other than the procurement of food. Jobs were now highly specialized and the effects of the Neolithic Revolution can be readily observed.

> ***"The workshop of a specialist in bone tools and beads contained an untidy clutter of the raw material, animal long bones and ribs, lying in depth in the corridor and in his workroom. The tables on which he worked were flat sandstone slabs lying on the floor, together with his tools and with beads of stone, bone and shell in every stage of the making. Some stone beads were found with the grinding process unfinished, others with the perforation just begun. By the table lay a slender long bone, the shaft divided by incised grooves into nineteen fairly equal sections; nearby were separated slices of rings, rough and unworked, as well as the finished products, smooth and polished. The bone tools also provided a fine view of the worker's art: beautifully polished spatulae, slender points and long weaving implements of aurochs' ribs. One worker in horn left his workroom with a magnificent pair of horns lying on the table; nearyby was another pair in readiness for use. In a corner lay a neat pile of ground stone tools. This man kept his basement tidy in marked contrast to most of the others. In one cubicle of the butcher's shop was a great heap of animal bones, some jointed, and horned heads, while the room opposite was piled with heavy implements, choppers, grinders and pounders. Other workshops showed a more general activity; one contained a mixture of horn and bone working, with ground stone tools in quantity and beads as well. Querns, (grinding stones for grain),were abundant everywhere and when worn out were frequently used as building material."***

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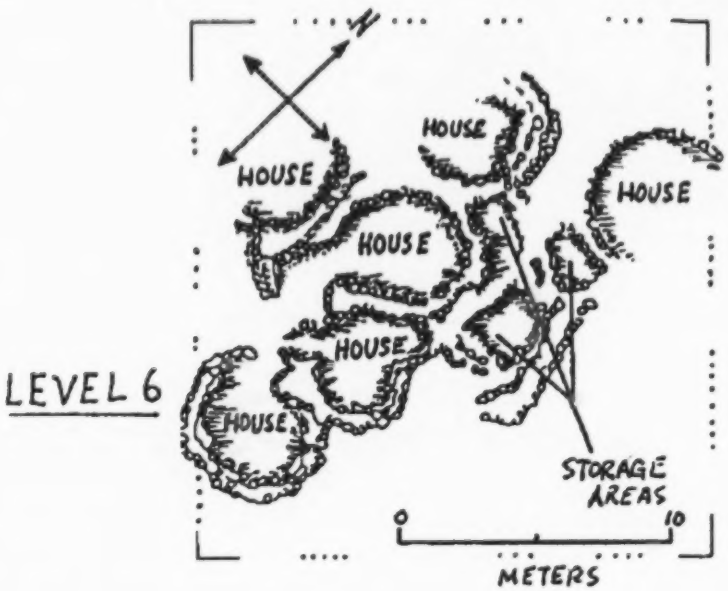
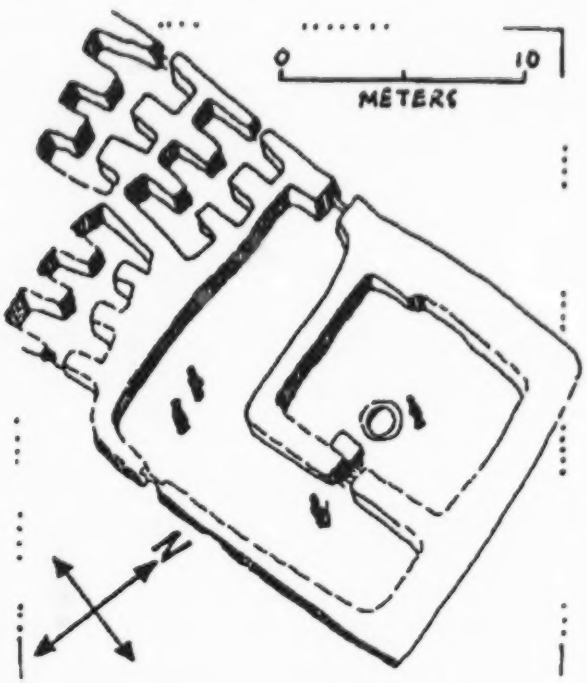
BEIDHA

ILLUSTRATION 3A



LEVEL 6

ILLUSTRATION 3B



LEVEL 2

Architectural structures uncovered at Beidha: Illustration 3A: circular cluster housing in lower level SIX; and Illustration 3B: corridor and large-roomed buildings in upper level TWO. (After Kirkbride, 1966a; 1968). Illustrated by Carole Collier Frick.

ÇATAL HÜYÜK (A CASE STUDY)

Çatal Hüyük is one of the largest excavated sites in the Ancient Near East and it is located in the central plain of present-day Turkey. The period of occupation which has been excavated is the period from 6250-5400 B.C. Please consult the drawings in **ILLUSTRATIONS 3C** and **3D** to better understand the descriptions which follow:

- The site is one of the largest of the Neolithic period. It covers 32 acres and contains over 1,000 houses with a population of 4,000 to 5,000. It was discovered in 1958 by James Mellaart, an English archaeologist.

- It has been beautifully preserved due to a catastrophic fire which baked the clay walls.

- The houses are highly standardized according to a common floor plan. They are usually about 25 square meters in area. They consist of a living room and a smaller storeroom. On one end was a built in cooking area with a hearth. Furniture such as sleeping platforms and platforms used for work were built in.

- There are no doors in these houses. Access was from an opening in the flat roofs with a ladder on the south wall. This hole in the roof also served as a smoke hole for the hearth.

- Houses were rectangular and they were built up against one another. There were no streets and lanes for pedestrians. All communication was by roof-top. The structure of the city did not allow for individual rebuilding when a house needed it; this had to be done as a group.

- Roof levels were staggered to admit light through windows.

- There were courtyards for animals.
- Simple irrigation ditches were found.
- 90% of the animal bones found were those of cattle.
- An abundance of obsidian stones were found here even though obsidian is not native to this region, in fact, it is native to an area 250 kilometers away.

ÇATAL HÜYÜK

ILLUSTRATION 3C

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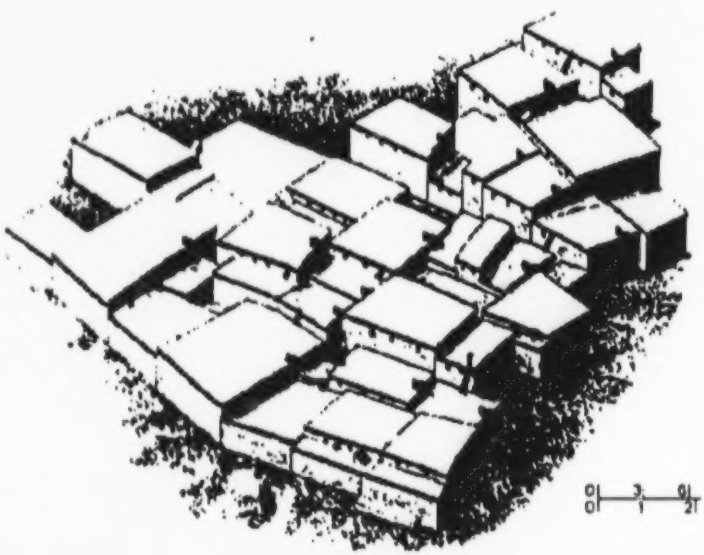


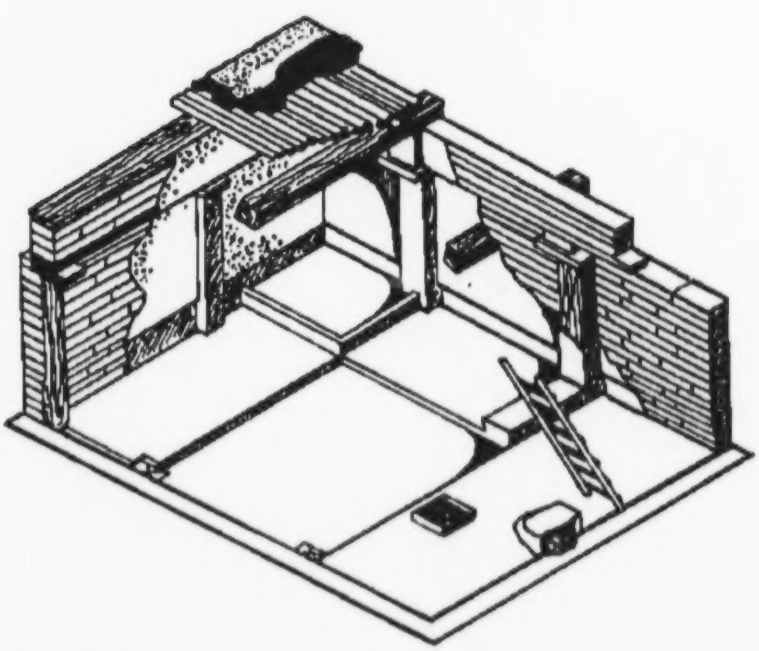


ILLUSTRATION 3D

Diagrammatic view of a typical room at Çatal Hüyük showing timber framework, panelling and platforms, bench, hearth, and larder (after Mellaart). Illustrated by Carole Collier Frick.

ART: DECORATIVE AND RELIGIOUS

A. Objectives

1. The student will observe that archaeologists have unearthed an abundance of artistic artifacts from Neolithic sites.

2. The student will see that an abundance of food along with a sedentary village life freed men and (particularly) women to specialize in craft production.

3. The student will be able to distinguish between art which was purely decorative and art which was mainly of religious value.

4. The student will be able to identify the geometric patterns on pottery which are typical of this period.

5. The student will be able to analyze renderings of archaeological artifacts in order to draw conclusions about art in this period.

6. The student will be able to identify Çatal Hüyük as a specific site where both religious and decorative arts have been found in abundance.

B. Lesson Activities (One Day)

1. Show students illustrations of pottery from the Neolithic period in the Ancient Near East. (See **ILLUSTRATION 4A**.)

2. Hold a discussion on the various skills and equipment that would be necessary for this type of work.

3. Pass out **STUDENT RESOURCE FOUR** and have students read the material.

4. Brainstorm and discuss the difference between purely decorative art and art which is motivated by religion. (See sample questions for discussion.)

5. Have students copy or create some of the beautiful geometric patterns found on the pottery. This may be put in their journal.

6. Have students define vocabulary words in their notebooks.

C. **Extended Activities**

1. Students may make clay pottery imitating the Neolithic styles.

2. The students can continue work on their mural depicting the various arts and crafts of the period, including religious art.

3. The whole class, or a group of students, can create a culminating project from this unit. Here are the instructions:

   You are the curator of a museum. It is your job to organize an exhibit to give visitors an understanding of the Neolithic period.

   a. Describe the setting you will create for the exhibition. Don't forget to appeal to all 5 senses if you can. What would you include? Would you include plants? (Think back to **LESSONS ONE** and **TWO**.)

b. List the artifacts you would use.

c. Choose five artifacts and objects and explain in detail how you will display each one. High or low? Under protective glass or out in the open where it can be touched?

d. Design a brochure or poster to interest people in coming to see the exhibit.

e. Design T-shirts, tote bags and other items for sale in the museum shop.

D. Sample Questions For Discussion Of Background Materials

1. What are some of the reasons that men and women began to produce clay pottery during the Neolithic period?

2. What types of decoration did they use?

3. What evidence do we have that people produced art that had no religious significance?

4. Why were fertility goddess figurines made and worshipped?

5. What evidence do we have of ancestor worship in the Ancient Near East?

6. Describe some of the special artistic discoveries made at Çatal Hüyük.

7. What evidence is there that Çatal Hüyük may have been a religious center for surrounding areas?

E. Vocabulary

hamlet
shrine
religious
figurine
aesthetic
geometric
artifact
motif
polychrome
fertility

F. Evaluating The Lesson

1. Observe students while they analyze the documents.

2. Check their notebooks for accuracy.

3. Evaluate mural or museum activity.

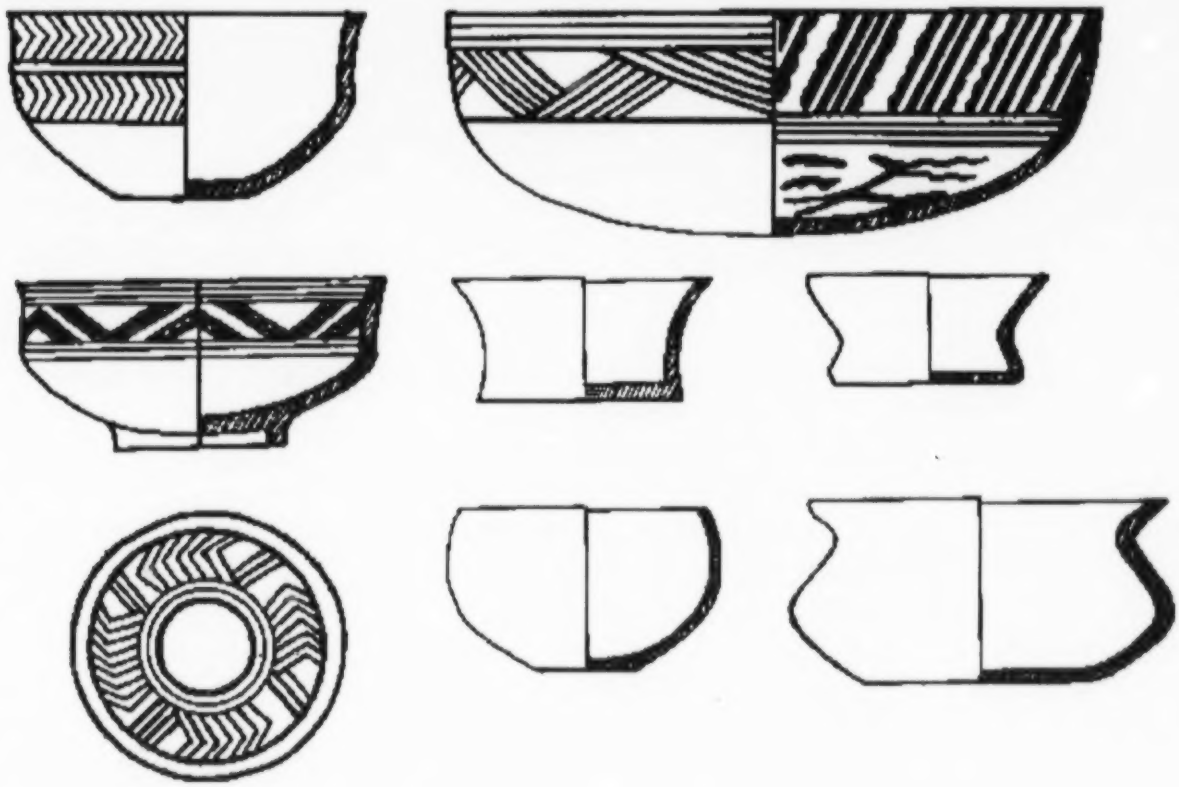
ART: DECORATIVE AND RELIGIOUS

As long as it was necessary for hunters and gatherers to move from home to home frequently or even in a winter/summer sequence, it is not likely that they would have been interested in making pottery. Pottery is cumbersome to carry and too likely to break. Also, there was little free time or space to engage in craft production. Even when people first settled down in villages they made crude stone vessels, with no artistic decoration.

At some time between 7,000 and 6,000 B.C. people began to make pottery. Perhaps a reliable and abundant source of food freed people to engage in this specialized craft. Also, people now discovered that baked clay containers had a variety of uses which heavy stone vessels did not. Large clay pots were good for storage of oil, grain and other products. Smaller vessels were useful for cooking, eating and drinking. Now people could make stews, soups and porridge!

The early potter had no wheel, (the wheel would not be invented for about three thousand years by the Sumerians), and she built up her vessel out of spiral coils of clay, scraping the sides smooth. Quite often it was women who made pottery. Very soon after men and women learned to make clay pottery, they began to decorate it. Sometimes the potter used a shell or comb to make patterns; at other times she painted the surface. The decoration usually was a geometric pattern. (See **ILLUSTRATION 4A.**) This design was a distinct change from the realistic animal paintings made by hunter/gatherer tribes. It was decorative art for its own sake, that is to say that the art had no other meaning than to please people aesthetically. Craftsmen and women also fashioned jewelry out of beads and pendants out of bones, shells or colored stone.

ILLUSTRATION 4A



Illustrated by Carol Collier Frick.

ILLUSTRATION 4B

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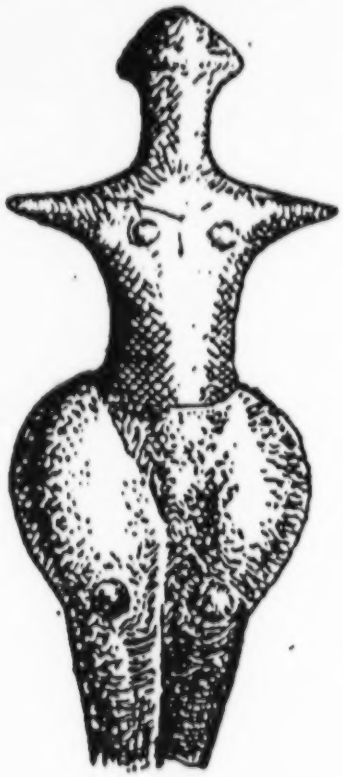

ILLUSTRATION 4C

Decorated Human Skull. Illustrated by Carole Collier Frick.

In addition to their decorative arts, many of the farming peoples also used their ceramic skills to make small models, often female **figurines**, symbolizing the Mother Goddess. (See **ILLUSTRATION 4B**.) These figurines had **religious** or magical significance concerning the fertility of their crops or their flocks. This was a strictly religious function to art.

Another religious practice found in sites all over the ancient Near East was the plastering and decorating of human skulls. After a family member died, the body was left outside to decay and the bones were buried under the clay "beds" in the house. But the skulls were given special, artitistic attention. They were plastered in order to look as realisitic as possible and beautiful stones or shells were inset in the eye sockets. This elaborate behavior lets us know that Neolithic people practiced ancestor worship. (See **ILLUSTRATION 4C**.)

SHRINE ROOMS, ÇATAL HÜYÜK, TURKEY

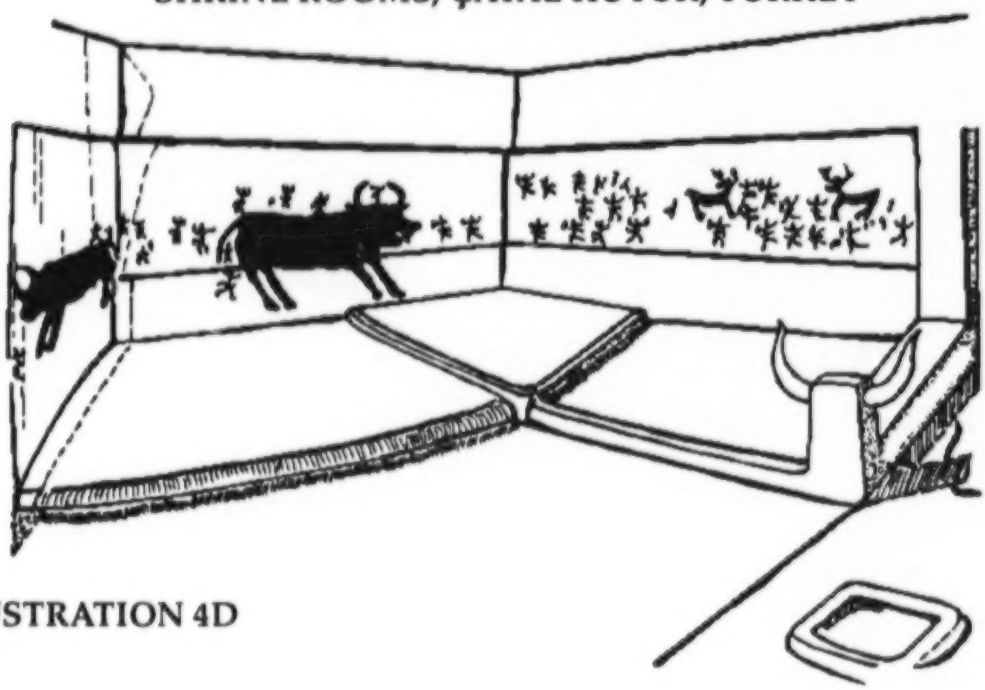

ILLUSTRATION 4D

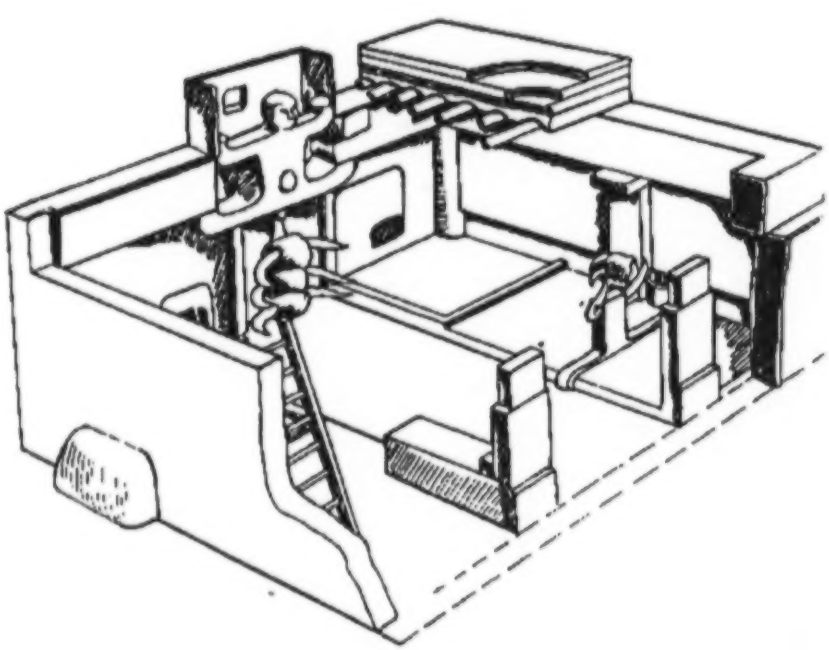

ILLUSTRATION 4E

Illustrations by Carole Collier Frick.

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STUDENT RESOURCE FOUR: BACKGROUND MATERIALS

At the site of Çatal Hüyük, you can observe unparalleled artistic achievements. There is fine pottery at all levels. The quantity of beautiful obsidian points, basketry and woven goods suggests a craft industry. Residents adorned their plastered walls with paintings done in **polychrome**. These paintings were of goddesses, animals and birds and they were associated with religious cults.

Shrines and religious murals are of unique interest at this site. Look at the renderings on **ILLUSTRATIONS 4D** and **4E**. **ILLUSTRATION 4D** reveals a religious shrine-room with its walls decorated in colored murals, recalling the cave-paintings of an earlier era, with heads or horns of animals. The picture in **ILLUSTRATION 4E** shows a sanctuary furnished with wall paintings, plaster reliefs, animal heads and cult statues. These rooms were similar in plan to domestic ones, with hearths, platforms, benches and ovens, but they were elaborately decorated and frequently larger. It is believed that these shrines at Çatal Hüyük served as a religious center for the performing of rituals for the surrounding **hamlets**, i.e. the start of specialized temple/church architecture.

You have seen in this unit that the Neolithic Revolution has freed humans to build villages, to design houses and to express themselves artistically. They now had all of the ingredients necessary to flourish culturally and to build beautiful cities with magnificent monuments. Soon, in geological terms, they would be able to paint the Mona Lisa, to write Hamlet, (writing will be developed by the Sumerians in about 3,000 B.C.), and to land on the moon. With the Neolithic Revolution humanity was launched on an endless pattern of technological advancement which continues today at an ever increasing rate.

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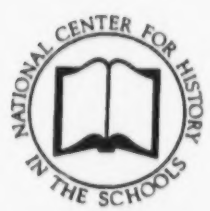
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